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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/731,937

12/10/2003

Peter Maurits Maria Van Geert

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07/20/2006

THE PROCTER & GAMBLE COMPANY
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EXAMINER

MAYES, MELVIN C

ART UNIT

PAPER NUMBER

1734

DATE MAILED: 07/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/731,937

Applicant(s)

VAN GEERT ET AL.

Examiner

Melvin Curtis Mayes

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 May 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

(1)

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

(2)

Claims 1 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art in view of WO 93/08084, JP 60-28459 Abstract, Yamaguchi et al. 5,200,253, Catena et al. 5,658,968 and Culbertson et al. 4,571,363.

The admitted prior discloses that a typical holographic film structure for packaging comprises an organic solvent based lacquer applied to a polyester (PET) film, the lacquer embossed, a metallic layer, typically aluminum, applied to the embossed lacquer, the polyester film laminated to other films and the structure printed (pg. 1-2). The admitted prior art does not disclose that the organic solvent based lacquer is acrylic based applied with toluene, butyl acetate or ketone solvent or disclose printing the metallic layer by first applying a water based primer of acrylic compounds then an organic solvent based ink of colored ink having ethanol as a solvent and white ink having ethyl acetate as a solvent.

WO 93/08084 teaches that the aluminum layer of flexible packaging material is applied by vapor deposition or sputtering. WO '084 further teaches that in making packaging material with holographic pattern by embossing a thermoplastic layer formed on a plastic film substrate, the thermoplastic layer may comprise an acrylic which softens and can be embossed under light pressure and can applied as a solvent-based lacquer using solvent free of toluene or

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methylethylketone and a suitable solvent such as ethylacetate or with a solvent such that after drying the thermoplastic layer contains no more than 10 mg per square meter of retained toluene or methylethylketone. WO 93/08084 further teaches that printing is applied to the aluminum film applied to the embossed thermoplastic layer and teaches that the printing is protected by a layer of varnish (pgs. 1-5).

JP 60-28459 Abstract (JP '459) teaches that solvents for acrylic lacquer include ethyl acetate and butyl acetate as well as toluene and methylethyl ketone).

Yamaguchi et al. teaches that for holographic sheet used for packaging and provided with a reflecting layer of aluminum, printing and protective varnish layer, a primer layer of lacquer is provided between the reflecting metal layer and the protective layer (varnish layer) to insure better adhesion therebetween. The ink layer (printing) may be provided on the surface of the primer layer (col. 18, lines 4-17).

Catena et al. teach that solvent-borne flexible packaging printing inks are widely used to print a wide variety of substrates such as plastic films and aluminum foils because they offer economy, versatility, quality and simplicity. Catena et al. teach printers and packagers prefer water-borne primers and teach that the ink should be formulated to have increased water-borne primer compatibility. Catena et al. teach that solvents for the printing ink can be selected from alkanols such as ethanol, acetates such as ethyl acetate or mixtures thereof (col. 1, lines 10-50, col. 2, lines 57-61, col. 3, lines 24-31).

Culbertson et al. teach that a primer for such use as for packaging material for improved adhesion to organic solvent based inks comprises an aqueous dispersion of acrylic component and acrylate comonomer (col. 3, lines 12-68, col. 6, lines 45-52).

It would have been obvious to one of ordinary skill in the art to have modified the method of the admitted prior art for making a holographic film structure for packaging by providing the organic solvent based lacquer on the polyester film as an acrylic lacquer, as taught by WO '084, as a solvent-based lacquer that can be applied to a plastic film substrate for subsequent embossing to make packaging material having a holographic pattern, the thermoplastic acrylic enabling embossing under light pressure. The use of an organic solvent-based acrylic lacquer in the method of the admitted prior art would have been obvious to one of ordinary skill in the art, as taught by WO '084, as a lacquer applied to a substrate for embossing for making packaging material with holographic pattern.

Providing the organic solvent for the acrylic lacquer as butyl acetate would have been obvious to one of ordinary skill in the art, as WO '084 teaches that solvents such as ethyl acetate are suitable and JP '459 teaches that solvents for acrylic lacquer include ethyl acetate and butyl acetate. The use of butyl acetate instead of ethyl acetate would have been obvious to one of ordinary skill in the art as an acetate solvent that can be used for acrylic lacquer. Further, using toluene or methylethyleketone (a ketone) as the solvent would have been obvious to one of ordinary skill in the art, as WO '084 suggests that these solvents can be used so long as after drying, the thermoplastic layer contains no more than 10 mg per square meter of retained toluene or methylethylketone.

By providing the aluminum layer on the embossed layer by vapor deposition or sputtering, as taught by WO '084 as the methods used to apply an aluminum layer for packaging, an aluminum layer having pinholes is obviously formed.

It would have been obvious to one of ordinary skill in the art to have further modified the method of the admitted prior art for making packaging material with holographic film structure by applying printing and a protective varnish layer to the aluminum layer, as taught by WO '084, as applied to the aluminum film when making holographic packaging material.

Providing a primer lacquer layer on the aluminum layer before applying the printing and protective varnish would have been obvious to one of ordinary skill in the art, as taught by Yamaguchi et al, to insure better adhesion between the aluminum layer and the protective varnish of the holographic sheeting used for packaging, and as taught by Culbertson et al., to improve adhesion to ink.

It would have been obvious to one of ordinary skill in the art to have further provided the primer lacquer layer for improved adhesion to ink of a water solvent-based lacquer primer, as taught by Catena et al., as preferred by printers and packagers, and to have printed the primer with an organic solvent based packaging ink, as taught by Catena et al., as widely used to print a wide variety of substrates such as plastic films and aluminum foils because they offer economy, versatility, quality and simplicity. By applying a water based lacquer primer to the aluminum film for better adhesion of the protective varnish and ink as suggested by Yamaguchi et al. and Culbertson et al., by providing the lacquer primer as water-based as preferred by printers and packagers as taught by Catena et al., and by providing the printing of a solvent-based ink as suggested by Catena et al, the references suggest making holographic packaging including the steps of applying a water solvent-based primer and an organic solvent-based printing ink onto a aluminum layer of holographic packaging, as claimed. Providing the water solvent-based primer

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between the aluminum layer and ink , as suggested, would obviously prevent solvent from the ink from migrating through the aluminum layer to the embossed acrylic lacquer, as claimed.

It would have been obvious to one of ordinary skill in the art to have even further modified the method of the references as combined by providing the water-solvent based primer as an acrylic primer of acrylic component and acrylate comonomer (acrylic compounds), as taught by Culbertson et al., as primer used for packaging material for improved adhesion to organic solvent based inks.

It would have been obvious to one of ordinary skill in the art to have further modified the method of the admitted prior art by providing the white and colored solvent based inks for printing as each comprising ethanol and ethyl acetate, as Catena et al. teach that solvent for printing ink can be a mixture of an alkanol such as ethanol and an acetate such as ethyl acetate.

Response to Arguments

(3)

Applicant's arguments filed May 10, 2006 have been fully considered but they are not persuasive.

Applicant argues that there must be some teaching, suggestion or motivation to combine references. Applicant argues that none of the cited documents teaches the pin-hole/solvent migration/dissolution problem discovered by Applicants. Applicant argues that Catena et al. ('968 patent) teaches away from using solvent inks with water-borne primers and argues that Applicant has discovered that water based primer comprising acrylic compounds can be used with solvent based inks.

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Applicant argues that the references do not suggest the aluminum layer penetration problem, using water based primer. Applicant argues that printing on an organic-laid lacquer is the exact opposite of the present invention, which uses a water-based primer.

(4)

Applicant's arguments are not convincing. Suggestions to modify the method of the admitted prior art is set forth in the rejection. With respect to the '968 patent, it does not teach away from using solvent-borne inks with water-borne primer. The reference teaches that solvent-borne inks are widely used in printing packaging and teaches that printers and packagers prefer water-borne primers. The objective of the '968 patent is an improved solvent-borne packaging printing ink which has increased compatibility with water-borne primer. This is not a teaching away but a teaching toward using solvent-borne ink with water-borne primer, otherwise why try to improve compatibility with water-borne primer. Applicant has not discovered that water based primer comprising acrylic compounds can be used with solvent based inks. As taught by the '363 patent, water-borne primer for use with organic solvent based inks include acrylic compounds. The use of primer comprising acrylic compounds is also only set forth in the present specification only as a preferred embodiment, and Applicant's supposed invention is directed to using water-borne primer in general to prevent organic solvent from ink from migrating to the lacquer.

In response to applicant's argument that Applicants have recognized an unsuspected problem and a remedy to the problem, the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227

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USPQ 58, 60 (Bd. Pat. App. & Inter. 1985). With respect to the discovered aluminum layer penetration problem and using water-based primer, it is not necessary that the prior art suggest the combination to achieve the same advantage or result discovered by Applicant. Applicant may have found that direct printing solvent-based ink onto an aluminum layer applied by vaporisation leads to dissolution of a solvent-based lacquer and uses a water-based primer to prevent the dissolution. However, the use of primer on an aluminum layer of packaging and to which ink and a protective layer are applied is suggested by the '253 patent for insuring better adhesion. While primer is suggested for a different reason, the use of a primer on an aluminum layer of packaging and onto which is applied printing is the same as what Applicant has done. Applicant cannot rely on the discovery of a problem for patentability if the subject matter as a whole suggests to do what Applicant has done, although for a different reason.

Conclusion

(5)

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kotani et al. teach that in forming a thin film of aluminum through vapor deposition, pinholes are liable to be formed (col. 2, lines 47-53).

(6)

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

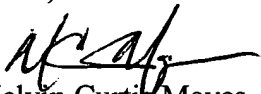
(7)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melvin Curtis Mayes whose telephone number is 571-272-1234. The examiner can normally be reached on Mon-Fri 7:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Fiorilla can be reached on 571-272-1187. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Melvin Curtis Mayes
Primary Examiner
Art Unit 1734

MCM
July 17, 2006